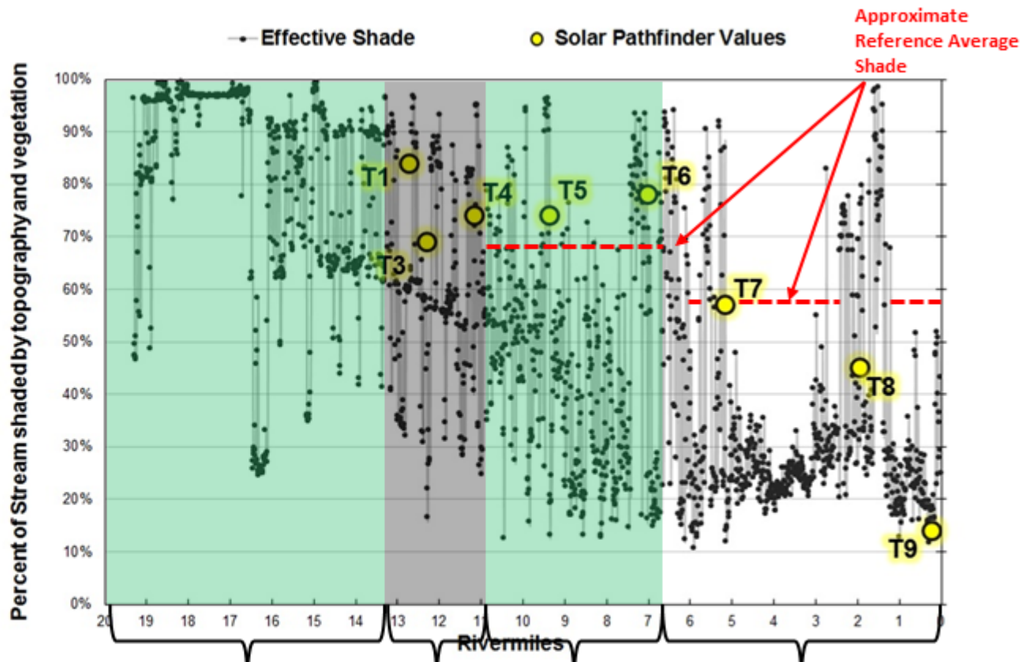
Appendix B.

Vegetation and Shade Analysis for Scenario Development



Summary of Existing Condition: From Hwy 200 downstream to the mouth, Grant Creek flows through the Clark Fork River valley in an area of mixed agricultural, residential, and commercial land uses. Based on air photo analysis, there appears to be significant opportunity to improve shade in the agricultural areas (i.e., introduce a vegetated buffer comprised of shrubs or trees where none currently exist).

Proposed Shade Scenario: Use the reach downstream from GRTC-T8 as a reference (shown to left) and apply reference shade (approximately 59% average daily) to this entire reach.

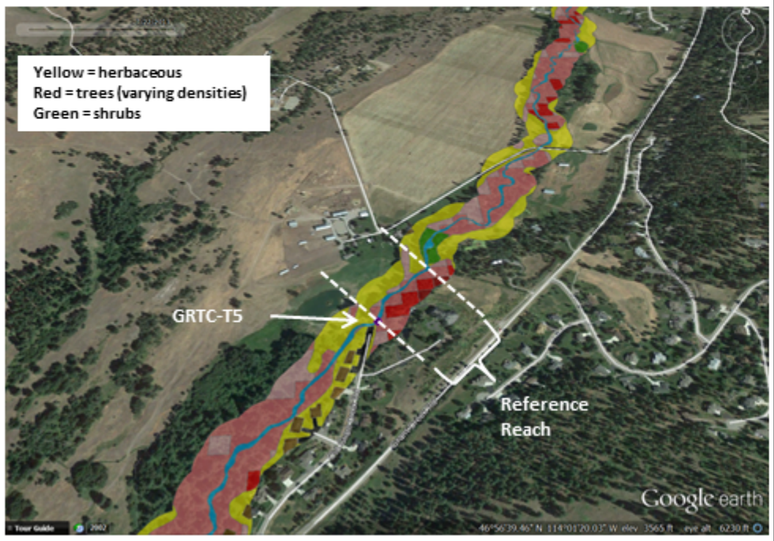
Note that the reference reach is comprised of a an approximate 25' buffer of shrubs.

Summary of Existing Condition: The riparian corridor and associated vegetation upstream from GRTC-T1 appears to be un-impacted by anthropogenic activities. This area is dominated by coniferous trees (of various densities) in mountainous terrain interspersed by natural openings. The vegetation in this area appears to be at potential.

Proposed Shade Scenario: This reach is above the model domain. No action.

Summary of Existing Condition: From GRTC-T4 downstream to Hwy 90 (just downstream from GRTC-T6) Grant Creek flows through the foot hills down to the Clark Fork River valley bottom. Where the riparian corridor has been un-impacted by encroachment from agriculture, power lines, and subdivisions, it is comprised of predominantly moderate to low density mixed deciduous and coniferous trees. There appears to be some limited opportunity to improve shade in this reach by converting some (but not all) of the current herbaceous areas to shrubs or trees.

Proposed Shade Scenario: Use the reach just upstream from GRTC-T5 as a reference (shown below) and apply reference shade (approximately 69% average daily) to this entire reach.



Summary of Existing Condition: Although the terrain and vegetation in this approximate two mile reach is similar to the upstream reach, the vegetation has been impacted by Grant Creek Road, Bench Road, and numerous openings in the canopy resulting from low density residential development (i.e., lawns, driveways, etc.). However, there does not appear to be much opportunity to increase shade given the current development (i.e., most of the riparian area is currently mapped as trees of varying densities).

Proposed Shade Scenario: Given the limited opportunity to improve shade, no-action.

Summary

Based on air photo analysis, it appears that:

1. Shade is at potential upstream from GRTC-T1.
2. Shade has been degraded slightly between GRTC-T1 and GRTC-T4. However, there is little that can be done to improve conditions given current development.
3. The "natural" condition for the riparian corridor between GRTC-T4 and GRTC-T6 is likely moderate to low density mixed deciduous/coniferous trees. There is some opportunity to improve shade in this reach, but only in discrete areas. Apply reference shade (approximately 69% average daily shade) to this reach for the shade scenario.
4. The riparian corridor downstream from Hwy 200 has been highly degraded and there is significant opportunity to improve shade. Apply reference shade (approximately 59% average daily shade) to this reach for the shade scenario.